



(12) **EUROPEAN PATENT APPLICATION**

(21) Application number: 91112100.2

(51) Int. Cl.<sup>5</sup>: C12M 1/40, G01N 27/30

(22) Date of filing: 19.07.91

(30) Priority: 20.07.90 JP 193449/90  
 20.07.90 JP 193646/90  
 15.07.91 JP 173737/91

(43) Date of publication of application:  
 26.02.92 Bulletin 92/09

(84) Designated Contracting States:  
 CH DE FR GB IT LI

(88) Date of deferred publication of the search report:  
 29.04.92 Bulletin 92/18

(71) Applicant: MATSUSHITA ELECTRIC  
 INDUSTRIAL CO., LTD.  
 1006, Oaza Kadoma  
 Kadoma-shi, Osaka-fu, 571(JP)  
 Applicant: KYOTO DAIICHI KAGAKU CO., LTD.  
 57 Nishiaketa-cho Higashikujo Minami-ku  
 Kyoto-shi Kyoto-fu(JP)

(72) Inventor: Nankai, Shiro  
 4-50-12, Nasuzukuri  
 Hirakata-shi, Osaka-fu(JP)  
 Inventor: Kawaguri, Mariko  
 202, 1-12-1, Dainichi-cho  
 Moriguchi-shi, Osaka-fu(JP)  
 Inventor: Yoshioka, Toshihiko

4-15-11-302, Shinmori, Asahi-ku  
 Osaka-shi, Osaka-fu(JP)  
 Inventor: Tsutsumi, Haruhiro  
 1833-1, Tanokubo, Shigenobu-cho  
 Onsen-gun, Ehime-ken(JP)  
 Inventor: Terao, Kyoza  
 1007-10, Kubota-cho, Kume  
 Matsuyama-shi, Ehime-ken(JP)  
 Inventor: Tanimoto, Naoki  
 1058-15, Shitsukawa, Shigenobu-cho  
 Onsen-gun, Ehime-ken(JP)  
 Inventor: Yoshioka, Masahiro  
 2-11-4, Higashiyosumi-cho  
 Takatsuki-shi Osaka-fu(JP)  
 Inventor: Hyodo, Hiroshi  
 1640-8, Minamigasa-cho  
 Kusatsu-shi, Shiga-ken(JP)  
 Inventor: Uchigaki, Takatoshi  
 5, Higashitsukurimichi, Koaza Kamikoma,  
 Oaza  
 Yamashiro-cho, Souraku-gun, Kyoto-fu(JP)

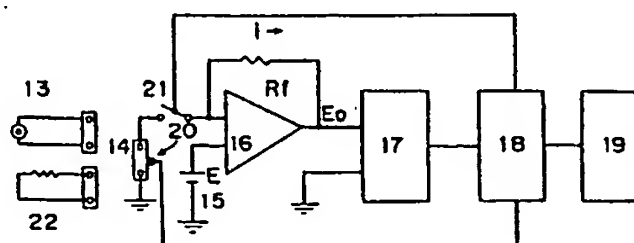
(74) Representative: Selting, Günther, Dipl.-Ing. et  
 al.  
 Patentanwälte von Kreisler, Selting, Werner  
 Delchmannhaus am Hauptbahnhof  
 W-5000 Köln 1(DE)

(54) Quantitative analysis method and its system using a disposable sensor.

EP 0 471 986 A3

(57) A sensor 13 is inserted into a connector 14. A constant voltage required to obtain a response current is applied across the connector 14 by a voltage applying source 15 at timings required. A response current of the sensor 13 inserted into the connector 14 is converted into a voltage by a current-to-voltage converter 16, and the amount thereof is determined by a microcomputer, the analysis results being displayed onto a display unit.

Fig. 4





European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 91112100

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	WO-A-9000738 (MARKWELL MEDICAL IST.) * abstract; page 22, line 29 - page 23, line 23; claims 1,37 *	1-6	C12M1/40 G01N27/30
A	US-A-4713165 (G. CONOVER et al.) * abstract; column 14, line 43 - column 15, line 17; column 18, line 54 - column 19, line 22 *	1-6	
A	EP-A-0220888 (FLOWLINE SYST. LTD.) * abstract; claims 1-9; figure *	1-6	
A	EP-A-0230472 (MATSUSHITA ELEC. IND. CO.) * abstract; figures 3,8 *	1-6	
A	DE-A-3822530 (RUHRKOHL AG) * the whole document *	1-6	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			C12M G01N
The present search report has been drawn up for claims 1-6			
Place of search		Date of completion of the search	Examiner
BERLIN		23.10.1991	MOUTARD, P.
<b>CATEGORY OF CITED DOCUMENTS</b>			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		I : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons A : member of the same patent family, corresponding document	



European Patent  
Office

### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

### X LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions.

namely:

1. claims 1-6  
A system for automatically distinguishing the quality of a chip mounted onto a sensor of an analysis system
2. claims 7-9  
Means for an analysis system to work

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☒ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims: 1-6

**THIS PAGE BLANK (USPTO)**